

WHAT IS CLAIMED IS:

1. A method of logical modeling operator
interaction with a programmable logic controller logical
5 verification system, said method comprising the steps of:

constructing a flowchart of interaction of an
operator in a workcell;

testing whether logic of the flowchart is correct;
and

10 using the flowchart to test PLC code to build the
workcell if the logic of the flowchart is correct.

2. A method as set forth in claim 1 wherein the
step of testing comprises starting a timer and determining
15 whether the operator interaction of the flowchart is completed
within a predetermined time.

3. A method as set forth in claim 2 wherein the
step of testing includes initializing the operator interaction
20 of the flowchart prior to starting the timer.

4. A method as set forth in claim 3 wherein said step of testing includes idling the operator prior to starting the timer.

5 5. A method as set forth in claim 1 wherein said step of constructing comprises constructing a series of commands for the operator.

6. A method as set forth in claim 5 wherein the
10 commands have at least one resource.

7. A method as set forth in claim 6 wherein the at least one resource has at least one capability.

15 8. A method as set forth in claim 1 wherein the step of testing includes executing the commands when a timer is started.

9. A method of logical modeling operator
20 interaction with a programmable logic controller logic verification system, said method comprising the steps of:

constructing a series of commands for an operator in
a workcell using a flowchart;

starting a timer and executing the commands to test
whether logic of the flowchart is correct; and

5 using the flowchart to test PLC code to build a
workcell if the logic of the flowchart is correct.

10 10. A method as set forth in claim 9 wherein the
step of testing includes determining whether the commands of
the flowchart are completed within a predetermined time.

15 11. A method as set forth in claim 10 wherein the
step of testing includes initializing the operator interaction
of the flowchart prior to starting the timer.

 12. A method as set forth in claim 11 wherein said
step of testing includes idling the operator prior to starting
the timer.

20 13. A method as set forth in claim 9 wherein said
step of constructing comprises constructing commands having at
least one resource.

14. A method as set forth in claim 13 wherein the at least one resource has at least one capability.

15. A method of logical modeling operator
5 interaction with a programmable logic controller logic verification system, said method comprising the steps of:

constructing a series of commands having at least one resource with at least one capability for an operator in a workcell using a flowchart;

10 initializing the operator interaction and idling the operator;

starting a timer, executing the commands, and determining whether the commands are completed within a predetermined time to test whether logic of the flowchart is
15 correct; and

using the flowchart to test PLC code to build a workcell if the logic of the flowchart is correct.